

(19) **FEDERAL REPUBLIC  
OF GERMANY**

**GERMAN  
PATENT OFFICE**

(12) **Offenlegungsschrift**  
[Unexamined First Patent Application]  
(10) **DE 197 48 930 A1**

(51) Int. Cl.<sup>6</sup>:  
**A 63 F 1/00**  
A 63 F 1/02  
A 63 F 1/10  
A 63 F 1/16

(21) Application Number: 197 48 930.3  
(22) Application Date: October 30, 1997  
(43) Date Laid Open: May 14, 1998

Application laid open for public inspection with the applicant's consent under § 31, Para 2, No. 1, German Patent Law

(71) Applicant:

Markeev, Vitalij, 13585 Berlin, DE

(72) Inventor:

same as applicant

(56) Cited References:

DE 44 39 502 C1

The following information was obtained from the documentation filed by the applicant

A request for examination has been filed under Art. 44, German Patent Law

(54) Card-Gaming Apparatus

(57) The invention intends to provide, in professional card games, for the prevention of various ways of cheating, automatic monitoring of the playing action and recording of the game results. This is achieved with the use of cards whose image side is a display, e.g., an LCD display. The image on the display of the card, hereinafter also called card, which is inserted into the card holder, appears after instruction to a computer, which is built into the card table, with the aid of the control panel. Since the image on the card changes after each round of play, the purpose behind marking the backs of the cards is eliminated. The playing action is monitored with the aid of the monitor system, which is disposed in the center of the card table and connected to the computer. The image of a card that is placed on the table simultaneously appears on the monitor, thereby preventing the card from being switched. After each round of play, the game results (number of purchases, points, etc.) appear on the monitor. After the end of the game, the results of the individual rounds of play are added and a readout of the final result is provided.

## Description

The present invention relates to a gaming apparatus for use in professional card games and touches on the problems of preventing various ways of cheating, automatic monitoring of the playing action, and recording of the game results. The inventive gaming apparatus may be used in casinos, but also in other facilities with gaming machines since it does not require the presence of a croupier, due to the automatic monitoring of the adherence to the game rules and recording of the game results.

A gaming apparatus (DE 44 39 502 C1) is known, which permits monitoring of the playing action and recording of the game results with the aid of an electronic-optical system. This gaming apparatus does not, however, protect against cheating, e.g., against any way of marking cards. Furthermore, the card table is equipped for a certain specific game, in the description that of "blackjack". The card gaming apparatus according to the invention, by comparison, may be used for a variety of games without having to convert the card table. A fundamental difference from the known system, whose distinguishing feature consists of an electronic-optical system for recognition of the printed image on the card, lies in that playing cards are used whose image side consists of a display.

The gaming apparatus according to the invention, whose overall view is shown in Figure 1, comprises a card table (1) having a built-in computer (3) and a monitor system (2). Each player station is provided with a control panel (4) and a card holder fan (5), which is shown separately in Figure 2 and which consists of a card holder (7) incorporating a series of slot-like openings (8) into which the playing cards (6) are placed. The image side of the card is a display, e.g., an LCD display. The bottom side of this playing card (6), hereinafter also called card, is provided with a contact conductor, with the aid of which a connection to the computer is established via the card holder (7) and the cable (10). Since the image on the card changes after each round of dealing, any method of marking (secretly altering the backs) of cards becomes meaningless.

The shape of the card table, the position of the monitors and the number of players may

vary. In the given example, the monitors are placed in the center of a square table and 4 players participate in the game.

The game takes place as follows: a type of game that is stored in the computer (e.g., Skat, poker, etc.) is selected. After selection of the game type, one of the players, who at that time acts as the dealer, opens the game with the aid of the control panel. The set of cards that is required by the game rules appears on the monitor. The dealer shuffles the cards by pushing the corresponding button on the control panel. Another player may subsequently cut the deck, also by pushing a button. The players are able to follow the action on the monitors. After the deck has been cut, the dealer pushes the "Deal Cards" button, after which the respective card image appears on the displays of the cards that are inserted in the players' card holders. In games whose rules provide for a so-called "additional purchase", the additionally purchased cards are placed into the free slots of the card holder. Cards that form the "additional purchase" are placed separately on the table. The image on these cards appears as soon as the player who had received this "additional purchase" in the course of the game, inserts them into the free slots of the card holder. In games (e.g., poker) whose rules provide for cards to be exchanged, the card that was removed from the deck is placed face-down on the table. The image on the card that was picked up from the table in exchange appears after insertion of the card into the slots of the card holder. This process may be repeated as desired and recorded in the computer program for each individual play. For this reason, we will limit ourselves to examining individual moments that are typical for most games and which will clarify the nature of the invention.

After the images appear on the displays of the cards and after the question of "additional purchase", "cutting" and "exchange" of cards has been clarified, the game develops almost like in a game with conventional cards. One player starts the game, i.e., he takes the cards that he needs from the card holder and places them on the table. At the same time the image of the cards that were placed on the table appears on the monitor. This prevents any cards from being switched. The image of a card that was removed

from the card holder is preserved by means of an autonomous power source (9) until the next round of dealing. The autonomous power source may be a solar battery or conventional minicell battery.

The difference from the play with conventional cards lies in that the players must confirm their declarations, e.g., number of purchases, passing, or whisting, on the control panel with the aid of corresponding buttons. In cases in which the sequential declaration required by the game rules is infringed for any reason, a warning appears on the monitor. Confirmation of the declarations by the players enables the computer to monitor the game rules and the entire playing action. This is important for the purpose of recording the results of individual rounds of play and of the entire game.

After each round of play, the results (additional purchases, points, etc.), which are temporarily stored in the computer, appear on the monitor. After the end of a game, the results are added and provided to the players in the form of printouts from the printer (not included in the drawing) or readout on the screen.

The use of a computer in the gaming apparatus according to the invention allows for wager accounting between the players and/or between the player and the bank by using magnetic cards for which special openings are provided in the control panel. This does not preclude the use of traditional wager accounting methods. If requested by the playing parties, either cash or gaming chips may be used.

What is claimed is:

A card-gaming apparatus comprising a card-table (1) having a built-in computer (3) and the monitor system (2) disposed thereon, the control panel (4) and card holder fan (7), **characterized in that**, to provide for the prevention of various ways of cheating in the course of the game, for automatic monitoring of the game rules and for recording of the game results, playing cards are used whose image side is a display, e.g., an LCD display, which are inserted into the slots (8) of the card holder (7), which is connected to the computer (3) by means of the cable (10), wherein the image appears on the display after instruction to the computer (3) and remains preserved during the entire round of play by means of an autonomous energy source (9).

Accompanied by 2 pages of drawings

#### List of Reference Numerals

- 1 card table
- 2 monitor
- 3 computer
- 4 control panel
- 5 card holder fan
- 6 playing cards
- 7 card holder
- 8 slot-like openings
- 9 autonomous energy source
- 10 cable